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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/073,625	02/11/2002	Joseph R. Lakowicz	UMARY1	4325
23373	7590	04/15/2004	EXAMINER	
SUGHRUE MION, PLLC			TUNG, JOYCE	
2100 PENNSYLVANIA AVENUE, N.W.			ART UNIT	
SUITE 800			PAPER NUMBER	
WASHINGTON, DC 20037			1637	

DATE MAILED: 04/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

8/14

Advisory Action**Application No.**

10/073,625

Applicant(s)

LAKOWICZ, JOSEPH R.

Examiner

Joyce Tung

Art Unit

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--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 10 March 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
 b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
 ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
 2. ☐ The proposed amendment(s) will not be entered because:
 (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
 (b) ☐ they raise the issue of new matter (see Note below);
 (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____.

3. ☐ Applicant's reply has overcome the following rejection(s): _____.
 4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
 5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: PLEASE SEE THE ATTACHED.
 6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
 7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____.

Claim(s) objected to: _____.

Claim(s) rejected: 1-2, 10-14 AND 28-82.

Claim(s) withdrawn from consideration: _____.

8. ☐ The drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
 9. ☒ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). 03102004.
 10. ☒ Other: Interview summary

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The applicant's Response (filed 3/10/2004) to the Office action has been entered. Claims 1-2, 10-14 and 28-82 are pending. Rejections and/or objected from the previous office action are hereby withdrawn. The following rejections are either newly applied or reiterated. They constitute the complete set presently being applied to the instant application.

Claim Rejections - 35 USC § 112

1. The rejection of claims 1-2 and 10-14 is withdrawn under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.
2. Claims 28-45 and 67-82 remain rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention since the language "an extrinsic fluorescence marker is not a part of the system" is unclear whether or not there is ~~a~~ support in the specification.

The response recites the specification at page 3, line 27 through page 4, and line 4 for arguing the language that is supported in the specification. However, the statement "such extrinsic fluorophores can be covalently or non-covalently attached to the biomolecule" (See pg. 3, line 27 to pg. 4, line 4) indicates that the extrinsic fluoreophore is a ~~part~~ of the system. Therefore, the rejection is maintained.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2, and 10-14 remain rejected under 35 U.S.C. 102(b) as being anticipated by Schalkhammer et al. (5,866,433, issued February 2, 1999).

The response argues that Schalkhammer et al. teach the sensor which is made from multiple metal particles, Schalkhammer et al. do not teach a sensor using only one metal particle as recited in claims 1-2 and 10-14 of the instant invention. However, as taught by Schalkhammer et al. each metal island is interpreted as a single metal particle with one or more biomolecule (See fig. 4). Thus, each metal island of Schalkhammer et al. with one or more biomolecule positioned at a distance apart sufficient to affect electromagnetic radiation emission of at least one of said one or more biomolecule (See fig. 4) is interpreted as a system.

Moreover, MPEP 2111 states, "Claims must be given their broadest reasonable interpretation. During patent examination, the pending claims must be "given the broadest reasonable interpretation consistent with the specification". Thus the rejection is maintained.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

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evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 46-66 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Schalkhammer et al. (5,866,433, issued February 2, 1999) in view of Natan et al. (6,149,868, issued November 21, 2000).

The response argues that Natan et al. disclose a combination of three elements, nanometer-sized metal particles, a biomolecule, and a SERS substrate and the sandwich of these three elements formed.

The response further argues that SERS measurements are base on vibrational spectral intensities of the biomolecule in the analyte and the skilled artisan would not have been motivated to combine and substitute the colloidal suspension of metal particles of Natan et al. with the system of Schalkhammer et al. to arrive at the invention recited in claims 46-66.

However, based upon the analysis of the argument, the instant claim language does not require that the three elements form sandwich structure. The limitations argued are not commensurate with the actual claim language. The rejection is maintained.

Summary

7. No claims are allowable.

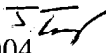
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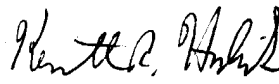
8. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Joyce Tung whose telephone number is (703) 305-7112. The examiner can normally be reached on Monday-Friday from 8:00 AM-4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached at (703) 308-1119 on Monday-Friday from 10:00 AM-6:00 PM.

Any inquiries of a general nature or relating to the status of this application should be directed to the Chemical/Matrix receptionist whose telephone number is (703) 308-0196.

9. Papers related to this application may be submitted to Group 1600 by facsimile transmission. Papers should be faxed to Art Unit 1637 via the PTO Fax Center located in Crystal Mall 1 using (703) 305-3014 or 308-4242. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989).

Joyce Tung 
April 13, 2004


KENNETH R. HORLICK, PH.D
PRIMARY EXAMINER

4/14/04